J. Thomay

Microbiology

ARS. JOUR.

Pur Shur-Biologive, No.4, 1959,

No.14895

AUTHOR INST.

Khomik, S.R.; Galsyev, Yu.V.

TITIE

:The Biochemistry of Amino Acid Metabolism in

Mills. Pib. / Th. mikrobiol., epidemiol. i irmunobiol., 1958,

ARSTRACT

:The decarboxylizing activity of freshly isolated strains was studied using the method of paper electrophoresis separation of amino acids and of the amines derived from them and employing a veronal buffer with a pH of 8.62. Decarboxylase was determined for histidine, arginine, lysine, and glutamic acid. Alto-gether 67 strains were tested which had been isolated from man and animals; 29 strains were preliminarily passed once or more through

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Microbiolegy.

ARE. JOUR. :

Ref Zhur-Biologiya, No. 1 3050.

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ORIG. PUB. ;

ABSTRACT

cats or mice, and 24 strains were isolated from children with gastro-intestinal disorders. The latter strains did not agglutinate with the Breslau serum, although they did not differ from the paratyphoid cultures by the biochemical criteria. Almost all the strains decarbolized arginine, but few of them lysine and histidine. Atypical (non-asslutinating and not forming H2S) strains decarbolized : glutamic acid more often. Strains isolated

CARD:

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COUNTRY

CATEGORY :

Microbiology.

ABS. JOUR. !

Ref Jhur-Siologiya, No. 4, 1959No. 14885

AUTHOR

1. Iz Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny i kafedry biokhimii Rostovskogo meditsinskogo instituta.

INST.

(SALMONELLA, metabolism,

TITIE

breslau, amino acids (Rus)

(AMINO ACIDS, metab.

Salmonella breslau (Rus)

DRIG. PUB. :

AHSTRACT

: at autopsy from cats or from patients with a prolonged and severeillness ordinarily decarbolized histidine. But this property was not related to the virulence of the strain. Strains isolated from the same patients during the course of the illness, passed strains, and strains stored for a long time altered the antigenic structure and correspondingly the decarbolizing activ-

: ity.

CARD:

3/3

53

THE COMPANY OF THE PROPERTY OF

KHOMIK. S.R.

Characteristics of strains of S. breslau isolated in Rostov Province, antha's abstract. Zhur.wikrobiol.epid. i immun. 29 no.5:128-129 My '58 (MIRA 11:6)

1. Iz Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(SALMONELLA.

breslau, nature of strains isolated in Russia (Rus))

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

KHOMIK, S.R.; GALAYEV, Yu.V.

Glutamin-decarboxylic and differential diagnosis of Salmonella and paracolon bacilli. Zhur.mikrobiol.epid.i immun. 30 no.7:60-63 Jl '59.

(MIRA 12:11)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii i gigiyeny i Rostovskogo-na-Donu meditsinskogo instituta. (SALMONELLA INFECTIONS - diagnosis) (PARACOLOBACTERUM - infections)

CONTRACTOR OF THE PROPERTY OF

GALAYEV, Yu.V. [Halaiev, IU.V.]; KHOMIK, S.R.

Pathogenesis of Salmonella breslau infections. Mikrobiol. zhur. 22 no. 1:34-39 '60. (MIRA 13:10)

1. Rostovskiy-na-Domi gosudarstvennyy meditsinskiy institut. (SALMONELLA TYPHIMURIUM) (ARGININE DECARBOXYLASE)

FERDINAND, Ya.M.; KHOMIK, S.R.; LEBEDEVA, Ye.A.

Ways of reducing further the incidence of typhoid fever. Zdrav. Ros. Feder. 5 no. 4:13-16 Ap !61. (MIRA 14:4)

1. Iz Rostovskogo nauchno-issledovatel¹skogo instituta epidemiologii, mikrobiologii i gigiyeny.

(TYPHOID FEVER)

GALAYEV, Yu.V.; KHOMIK, S.R.

Preparation with an arginine-decarboxylase activity obtained from \$.15phimurium and its effect in an experiment; author's abstract. Zhur.mikrobiol.epid.i immun. 31 no.8:141 Ag '60. (MIRA 14:6)

l. Iz Rostovskogo meditsinskogo instituta i Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(SALMONELLA TYPHIMURIUM) (ARGININE)

(DECARBOXYLASE)

KHOMIK, S.R.; GALAYEV, Yu.V.; LEBEDEVA, Ye.A.

Effect of tetracycline on amino acid decarboxylase of Salmonella typhimurium. Antibiotiki 7 no.6:548-551 Je '62. (MIRA 15:5)

1. Rostovskiy institut epidemiologii, mikrobiologii i gigiyeny 1 kafedra biokhimii Rostovskogo meditsinskogo instituta. (TETRACYCLINE) (SALMONELLA TYPHIMURIUM) (AMINO ACID DECARBOXYLASES)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

PODLEVSKIY, A.V.; KOGAN, V.Ya.; GORCHAKOVA, Yu.P.; YELIZAROVSKIY, G.I.; RYABOSHAPKA, A.P.; REZNIK, S.R.; GOLUBEV, T.I.; GINTSE, L.A.; RASKIN, M.M.; ZUYENKO, P.G.; KHOMIK, S.B.; KATSNEL'SON, I.A.; ZHILIN, S.I.; LYSENKOV, M.N.; ROMANOV, B.G.; SAVENKOV, D.A.; GIL', L.T.; LEVINA, Ye.S.; VOVKI, A.S.; POSLEDOV, F.F.

Annotations. Zhur.mikrobiol., epid.i immun. 32 no.12:120-125 D '61. (MIRA 15:11)

1. Iz Leningradskogo instituta usovershenstvovaniya vrachey imeni Kirova (for Podlevskiy). 2. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny (for Kogan). 3. Iz Voronezhskogo meditsinskogo instituta (for Gorchakova). 4. Iz Arkhangel'skogo meditsinskogo instituta (for Yelizarovskiy). 5. Iz Kiyevskogo instituta epidemiologii i mikrobiologii (for Ryaboshapka, Reznik). 6. Iz zavoda meditsinskikh preparatov Leningradskogo myasokombinata imeni S.M.Kirova (for Golubev). 7. Iz Gosudarstvennogo kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni Taraseviche (for Gintse). 8. Iz Chitinskogo instituta epidemiologii, mikrobiologii i gigiyeny (for Raskin). 9. Iz Ternopol'skogo meditsinskogo instituta (for Zuyenko). 10. Iz Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny (for Khomik). 11. Iz Chelyabinskogo meditsinskogo instituta (for Gil', Levina, Vovki, Posledov).

(IMMUNOLOGY—ABSTRACTS) (EPIDEMIOLOGY—ABSTRACTS)

LEHEDEVA, Ye.A.; KHOMIK, S.R.; MEDYUKHA, G.A.

Data from an epidemiological study of salmonellosis foci in Rostov-on-Don. Zhur. mikrobiol., epid. i immun. 33 no.12: 25-30 D '62. (MIRA 16:5)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii i

(ROSTOV-ON-DON-SALMONELLA INFECTIONS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

Characteristics of immunity in salmonelloses. Zhur. mikro-biol., epid. i immun. 40 no.3:68-72 Mr '63.

(MIRA 17:2)

l. Iz Rostovskogo-na-Donu instituta epidemiologii, mikro-biologii i gigiyeny.

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KOVALEVSKAYA, I.L.; EPSHTEYN-LITVAK, R.V.; DMITRIYEVA-RAVIKOVICH, Ye.M.;
KURNOSOVA, N.A.; SHCHEGLOVA, Ye.S.; FERDINAND, Ya.M.;
KHCMIK. S.R.; MAKHLINOVSKIY, L.P.; PETROVA, S.S.;
GOLUBOVA, Ye.Ye.; GONCHAROVA, Z.I.; SARMANEYEV, A.P.;
SIZINTSEVA, V.P.; Prinimali uchastiye: MEDYUKHA, G.A.;
OSOKINA, L.A.; RACHKOVSKAYA, Yu.K.; OSOVTSEVA, O.I.;
DEDUSENKO, A.I.; KOVALEVA, P.S.; KARASHEVICH, V.P.;
CHEBOTAREVICH, N.D.; CHIGIR', T.R.; SKUL'SKAYA, S.D.;
KECHETZHIYEV, B.A.; DEMINA, A.S.; ZUS'MAN, R.T.; YESAKOV, P.I.;
SYSOYEVA, Z.A.; ZINOV'YEVA, I.S.; FAL'CHEVSKAYA, A.A.;
DENISOVA, B.D.; TIMOFELEVA, R.G.; SYRKASOVA, A.V.;
LYANTSMAN, S.G.

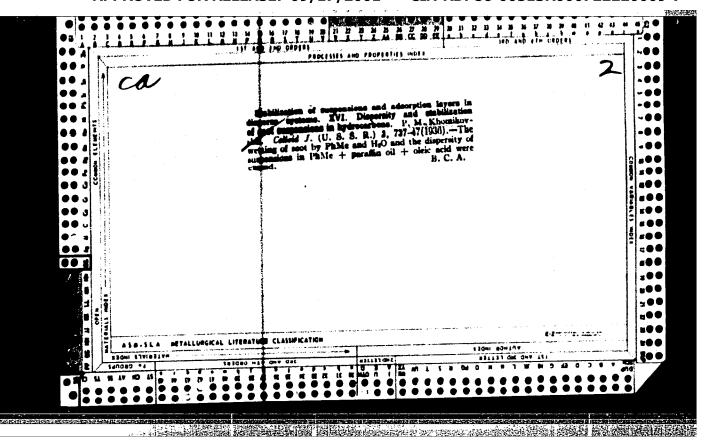
Reactivity and immunological and epidemiological effectiveness of alcoholic typhoid and paratyphoid fever vaccines in school children. Zhur. mikrobiol., epid. i immun. 33 no.7:72-77 J1 '62. (MIRA 17:1)

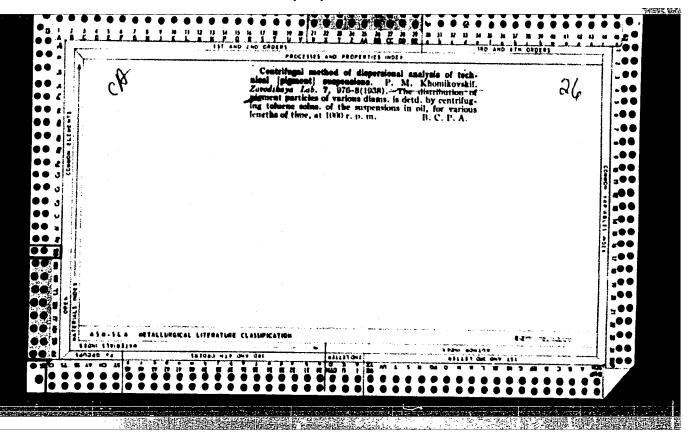
1. Iz Moskovskogo, Rostovskogo, Omskogo institutov epidemiologii i mikrobiologii, Stavropol'skogo instituta vaktsin i
syvorotok i Ministerstva zdravookhraneniya RSFSR. 2. Rostovskiy
institut epidemiologii i mikrobiologii (for Kovaleva).
3. Stavropol'skiy institut vaktsin i syvorotok (for Sysoyeva).
4. Kuybyshevskiy institut epidemiologii i mikrobiologii (for
Zinov'yeva). 5. Saratovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya (for Lyantsman).

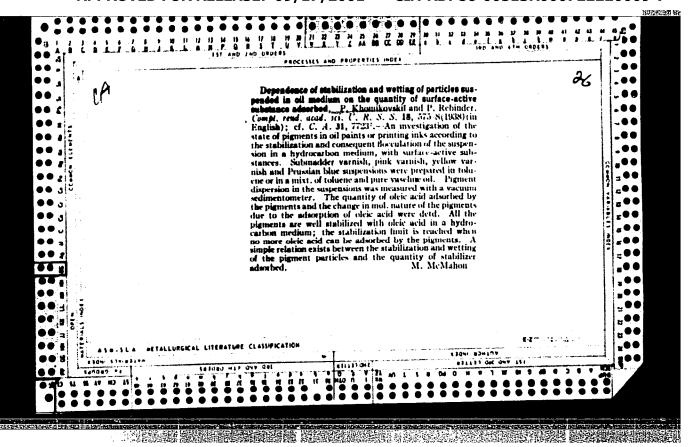
KHOMIK, Yu., udarnik kommunisticheskogo truda, komandir samoleta
YAK-12A.

Productivity depends on the air pilot. Grashd. av. 20 no.6:
6-7 Je *63. (MIRA 16:8)

(Aeronautics in agriculture)

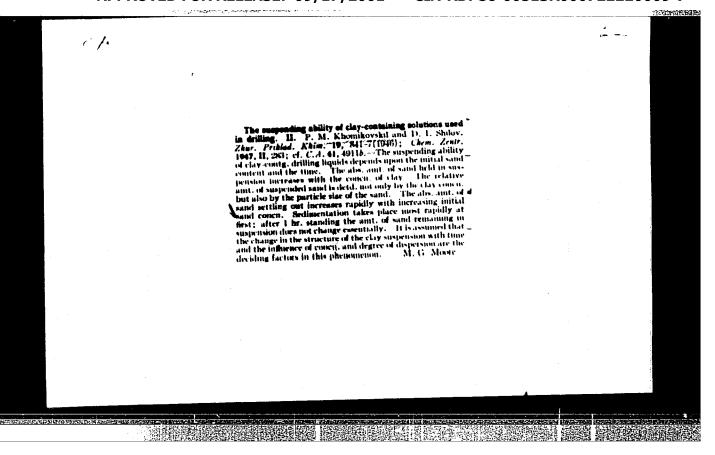




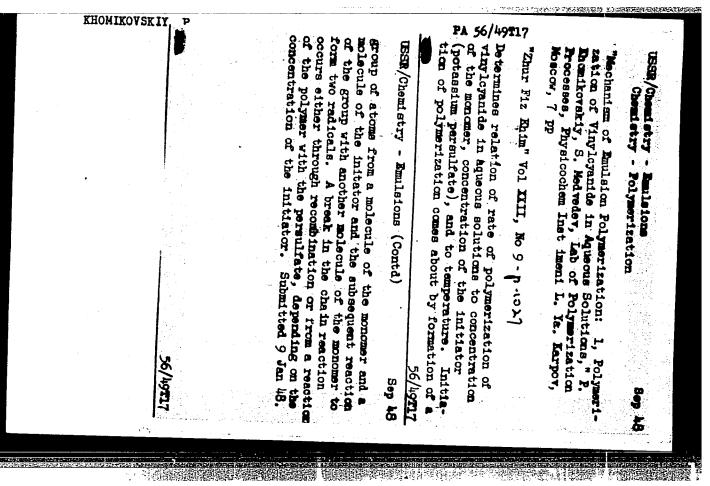


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CIA-RDP86-00513R000722220009-7



PA-77T3 KHOMIKOVSKIY, P. M. May 1948 - Polymerization, in Scap Solutions Chemistry - Emulsifiers "On the Mechanism of Emulsion Polymerization; Polymerization in Water and Soap Solutions," P. M. Khomikovskiy, Phys Chem Inst imeni L. Ya. Karpov, 4 pp Vol IX, No 4 - p.615-18 "Dok Ak Nauk SSSR" Increased speed of emulsion polymerization, as compared with polymerization in homogeneous systems, has not been satisfactorily explained. Colloidal solution of monomers in solutions of emulsifiers and micelle polymerization do not account for increase in speed. Author describes his experiments and comments on results. Submitted 7 Jan 1948.



KHOMIKOVSKIY, P. M.

22371-Khomikovskiy, P.M. Teoriya Emal'sionnoy Polimerizatsii, Stat'ya 2.
Vysokomolekulyar Soyedimeniya, Vyp. 8, 1949, S. 1-13.-Bibliogr: S.13Stat'ya I: Vyp. 7, 1948

S0: Letepis' No. 30 1949

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Polymeriastics of 1,1-dichlerosthylone in existions of emphasizors under the action of water-calculic perceites. G. V. Thachenko and P. M. Khomikayakile. Debiedy Ahad. Nauh S.S.S.R. 72, 543-6(1930).—The binetics of the polymerization were detd. with 1,1-C₃H₃Cl₃ chosen as representative of monomers practically basel. In H₂O₃ also, the polymer awells only to a limited extent in its monomer. The distribution coeff. of the monomer between H₂O and mivelles of the emulsifier, Na saits of C₁-C₁ alkyleulfonic acids and K polmitate, was detd. to ~500 at 40°. In runs with the soln, constantly kept satd, with the monomer through feeding from the vapor phase, y the rate of polymerization, r, at 40° without emulsifier is exceedingly slow. With a cours, of emulsifier c = 0.1-0.5°, r is slow in the initial period, then changes to a faster stationary rate. With 3-10% an initially very fast r is followed, at the time r₁, by a level branch of very slow polymerization, going over, at v₀ into a linear branch of court. r. At this stationary stage, r increases with c between 0.1 and 5%, and remains unchanged between c = 8 and 10%. The activation energy of the over-all reaction between 40 and 50° is 14 heal./snoke. In contrast to water-sol, monomers (methacrylates, C₁H₂CN, etc.), polymerization in this system, if one active particle (involving one or a few mols, of the monomers) is to be available per

micelle of the soap of 25-A, radius, requires a samp cance, of the order of 1-10%. The initial sharp rise of the polymerization curves is detd, by soin, of the monomer in the emulsifier; the inflection at \(\eta_i \) corresponds to sath, of the soin, and of the micelles with monomer. The range of const. \(r_i \) from \(r_i \) on, corresponds to a reaction taking place in the polymer particles or, predominantly, at their survey face, after the monomer dissolved in the soap micelles, has been consumed. The dependence of the stationary \(r_i \) on \(c_i \) is evilently linked with a decrease of the size of the polymer particles with increasing \(c_i \). The main role of the emulsifier thus consists in a stabilization of the polymer particles. The bulk of the polymer is formed at the polymer particles, irrespective of the location of the initiation.

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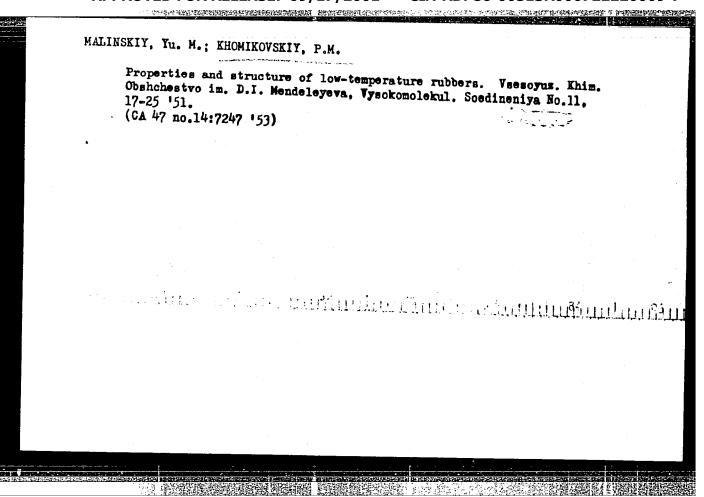
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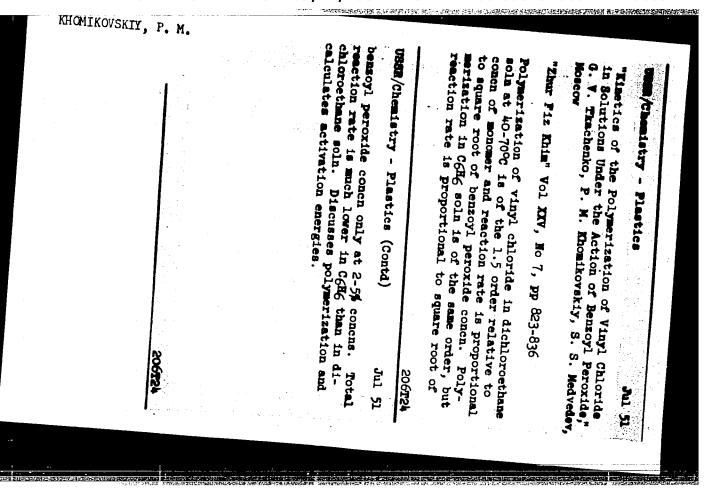
Polymerization in solutions of emulaiders under the action of benseyl percuide. Z. N. Markina, P. M. Khomikovskii and S. S. Merivedev. Duhkidy Abid. Nather-3.7 S. 7. 3. 243-6(1960). -(1) The soly, of Bz₁O₁ in soap solns. (Na salts of fatty sulfonic acids C₁₇-C₁₉) was detd, in scaled tubes 6 under N₃ at 29°. Suth. is attained in 6-0 hrs. Relative to the amt. of soap (1.25-20% in soln.), the amt. of Bz₁O₁ dissolved is approx. const., ~0.003 g. Bz₂O₂/g. soap. (2) Initial rates of polymerization in emulsion of CH₁:CHCN (1) (initial conen. 8%) in preliminarily Bz₂O₂-antd. soap solns. of 1.25, 2.50, 5.0, 10, and 20%, measured by dilatometry, under N₁ at 60°, were 0.30, 0.43, 0.60, 0.79, and 1.10 × 10⁻⁸ mole/1./min.; for methyl methacrylate (II) (initial conen. 2%), in soap 2.50, 5.0, 15, and 20%, 14, 9.5, 7.5, and 4.0 × 10⁻⁸; styrene (III) (1.5%) in snap 5.0, 10, and 20%, 4.7, 2.1, and 1.4 × 10⁻⁸. The rate of polymerization w of the monomer dissolved in the soap micelles is w = k₁a₁/s₁ⁿ-1, where w is the order with respect to the conen. of the monomer, r = vol.; the total amt. of the polymer a - a₁ + a₁, with the subscripts 1 and 2 referring to soap micelles and to H₂O₂ resp. With the distribution coeff. of the monomer between the soap and H₂O₂ K = (a₁/s₁)/

(a)/b), one has $w=b_1(a^*/c^{-1})K^*/[1+(K-1)q]^n$, where v= total vol., and q=p/e. At q=qa, defined by qa=n/[1-K+n(K-1)] (from the condition dw/dq=0), w must pass through a max, the values of K (at 60^*) and q=are: I, 4 and 0.65; II, 89 and 0.01; III, 1500 and 0.001. Consequently, for I, the initial w should increase up to u soap conen. c of 15%, whereas for II and III it should fail at c higher than I and 0.0^* , resp., in agreement w ith the observations. The existence and the position of the max of w is detd, by K. At $K \ge 100$, practically all of the monomer is dissolved in the soap even at low $c(\sim 1\%)$, and an increase of c must cause a decrease of w on account of the lowering of a_1 at coust. a_1 . At low $K \sim 1-10$, a_1 increases faster than a_1 , over a wide runge of c, hence w must increase. (3) In solns, of emulsifiers in the presence of perusides sol, in the monomer, polymerization takes place in the snap micelles in which the monomer and the peroadic are dissolved. Significantly, if Ba_1O_1 , instead of being preliminarily dissolved in the soap, is added as a solid or dissolved in the slowness of the satu, of the soap micelles with Ba_2O_1 . Only in emulsion polymerization in the presence of littlesoil, peroxides does the process occur to a significant degree also in the emulsion drops.

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KHOMIKUYSKIY,	P. M.				للزنط	22	
	183122	polymerization ofl,1-dichloroethylene under influence of K ₂ S ₂ 08. Exami possible locations of elementary reactions during polymerization in solns of emulsifiers and in emulsions depending on nature of peroxide initiator (sol in H ₂ 0 or monomer) and on solly of monomer in H ₂ 0.	USSR/Chemistry - Plastics and May/Jun 51 Elastomers (Contd)	Detd colloidal soly of 1, 1-dichloroethylene in emulsifier solns of different concns. Showed for 0.1-10% concns, the concn of dichloroethylene in emulsifier micelles is approx const (34-38%). Studied effect of concn of emulsifier on rate of	Moscow "Kolloid Zhur" Vol XIII, No 3, pp 217-225	"Mechanism of Emulsion Polymerization. Polymerization of 1,1-Dichloroethylene in Solutions of Emulsifiers," G. V. Tkachenko, P. M. Khomikovskiy,	USSE/Chemistry - Plastice and May/Jun 51



Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

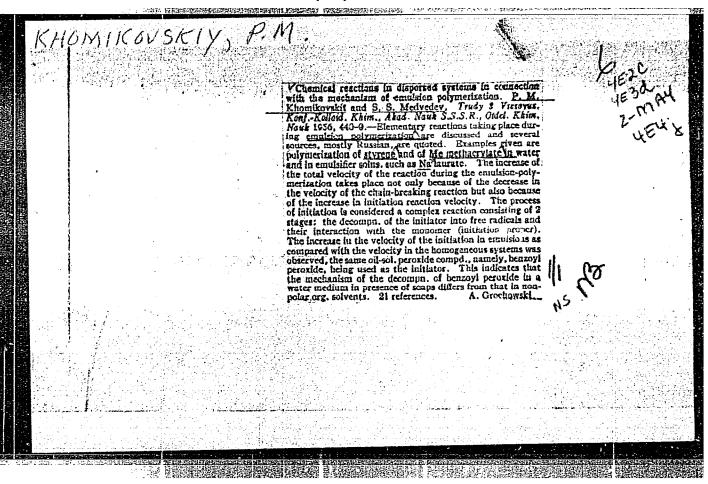
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ABKIN, A.D.; MEDVEDEV, S.S.; KHONIKOVSKIY, P.M.; ZABOLOTSKAYA, Ye.V.

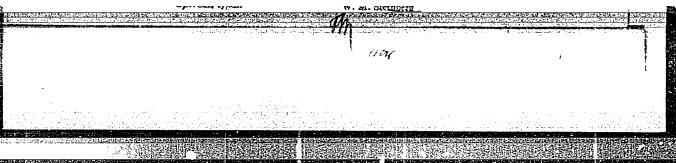
Kinetics and mechanism of the copolymerisation of vinyl chloride and vinylidene chloride. Zmr.fis.khim. 27 no.10:1516-1524 0 '53. (MLRA 6:12)

1. Fisiko-khimicheskiy institut im. L.Ya. Karpova, Moscow.
(Polymers and polymerisation) (Vinyl chlorides)

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	riens in dichlarosthane were studied in bulk and in emul-	
	action velocity was deld, by the method of The time.	
	et al. (C.A. 46, \$370). The copolymerication courses, of the monomers (A. les view) chloride, B for the unsaid.	
	computation of the control of the co	1
	DEODORC, 2-Chloropotene, vinyhdene chlorida and di	
	Chleroethane, Kus 6.043, 0.025, 0.007, and 0.74 Kas 22, 0.83, 4.34, and 6; Can 0.005, 0.4, 4,004, and 73, resp	
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KHOMIKOVSKIY, P. M.; YUNZHENKO, A. L.,

"The mechanism of emulsion polymerization."

report presented at the Fourth All-Union Conference on Colloidal Chemistry, Thilisi, Georgian SSR, 12-16 May 1958 (Koll shur, 20,5, p.677-9, '58, Taubman, A.B)

SOV/81-59-10-37461

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 577 (USSR)

AUTHORS: Medvedev, S.S., Khomikovskiy, P.M., Sheynker, A.P., Zabolotskaya, Ye.V.,

Berezhnoy, G.D.

TITLE: The Regularities of Emulsion Polymerization

PERIODICAL: V sb.: Probl. fiz. khimii. Nr 1, Moscow, Goskhimizdat, 1958, pp 5-17

ABSTRACT: A review. There are 13 references.

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

'AUTHORS: Teplov, B.F., Khomikovskiy, P.M., (Dzerzhinsk) SOV 69-58-4-12/18

TITLE: The Topochemistry of the Drop Polymerization of Vinyl Chloride

(O topokhimii kapel'noy polimerizatsii khloristogo vinila)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 469-475 (USSR)

ABSTRACT:

Two forms of emulsion polymerization are known: 1) polymerization in emulsions stabilized by soaps which takes place in polymer-monomer particles of small size and leads to the formation of latexes; 2) polymerization in emulsions stabilized by protein emulsifiers or high-polymers under the influence of initiators soluble in the monomer. Reliable data on the topochemistry of this polymerization may be obtained by comparing the speeds of the process in water, in the emulsifier solution, and in the emulsion. In the article, the polymerization of vinyl chloride in water and a 2%-solution of photo-gelatine under the influence of the peroxide of benzoyl (PB) and the dinitryl of the azoisobutyric acid (DN) has been investigated. The solubility of PB and DN was determined by stirring these substances in water or gelatine solution. The table shows that PB is practically insoluble in water or gelatine. The

solubility of DN in water is considerable. Vinyl chloride is Card 1/3 a little more soluble in gelatine than in water. For de-

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The Topochemistry of the Drop Polymerization of Vinyl Chloride

termining the distribution of DN in water and in the monomer, a dichloroethane solution of DN was made. It was found that 92 % of DN is found in dichloroethane and 8 % in water. The polymerization was carried out at 50°C in the absence of air. Figure 2 shows that 1 g of polyvinylchloride absorbs 0.25 g of the monomer. The speed of polymerization with PB is very slow (Figure 3, Curve 1). In the presence of DN, the process takes place with a constant speed after an initial acceleration stage. The size of the particles was determined in every sample of the suspensions in 1,500 - 2,000 particles. The maximum of the distribution curves is found between 15-25 \mu. With an increase of the depth of polymerization an increase of the small particles of 5 is observed. Polymerization starts in a molecular water solution containing 0.4 g/l DN and 10 g/l vinyl chloride. In the monomer particles the following reactions are possible: 1) initiation of polymerization by DN-molecules; 2) growth of the chain by the addition of monomer molecules to the primary radicals; 3) breaking of chains; 4) transmission of the chain through the molecules of the monomer and the polymer. As soon as the polymer particles are formed, polymerization takes place in the water solution

Card 2/3

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The Topochemistry of the Drop Polymerization of Vinyl Chloride

and in polymer particles. The speed of the process in the polymer particles is greater than in water because the monomer concentration is higher and chain breaking is slower. After the accumulation of a certain quantity of polymer, the polymerization speed is constant. This is probably due to the fact that the polymerization takes place completely in the polymer particles. The latex polymerization of vinyl chloride takes place with greater speed than the droplet polymerization. It is not yet known if this is caused by an increase of the initiation speed or by an additional decrease of the chainbreaking speed.

There are 3 graphs, 1 diagram, 1 table, and 19 references, 12 of which are Soviet, 4 English, 1 American, 1 German, and 1

Italian.

SUBMITTED:

April 13, 1957

1. Ethylene polymers—Synthesis

Card 3/3

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SOV/74-27-9-1/5 Khomikovskiy, P. M. (Moscow) AUTHOR: Kinetic and Topochemical Properties of Emulsion Polymerization TITLE: (Kinetika i topokhimicheskiye osobennosti emul'sionnoy polimerizatsii) Uspekhi khimii, 1958, Vol 27, Nr 9, pp 1025-1055 (USSR) PERIODICAL: In the beginning the author discusses the general application ABSTRACT: of emulsion polymerization as well as its advantages, especially in the production of high-molecular substances. Besides the important advantages there are also some disadvantages of emulsion polymerization, e.g. impurification of the emulsion by residues of the emulsifier, which sometimes may make the emulsion polymers unsuitable for use. Usually two groups of substances are used as emulsifiers: the water soluble high-polymers and the surface active substances (of the scap type). In a special chapter the author deals with latex polymerization. The general concepts on the topochemistry of latex polymerization (Refs 27-40) are discussed: the water soluble monomers, as well as monomers, the water solubility of which is not higher than 3%. A third group comprises those monomers which are only weakly soluble in water (Refs 35-39,4C) Card 1/2

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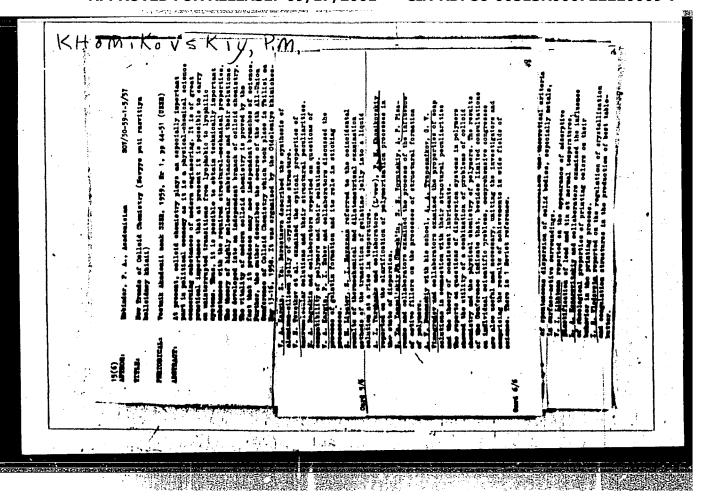
30V/74-27-9-1/5

The state of the s

Kinetic and Topochemical Properties of Emulsion Polymerization

Furthermore the author discusses the kinetics of latex polymerization (Refs 41-46). In a special chapter the author deals with the general kinetic determinents of latex polymerization, e.g. the rate of polymerization, the effect of phase correlation, and the effect of the nature and the concentration of the initiators of the polymerization on the latex polymerization (Refs 35-73). Furthermore the author discusses the effect of the nature and the concentration of the emulsifier (Refs 74,75, 76) and the dependence on the temperature, which especially refers to the rate of polymerization in the emulsion and in the homogeneous systems. The publications of A. I. Yurzhenko (Refs 80,81) are considered in detail. In the last chapter the author deals with the molecular weight of latex polymers (Rers 72,84,90-93) and the influence of the electrolytes (Refs 69,85,97-98,99-100,101-106-119). Finally the author gives the basic topochemical and kinetic properties of latex polymerization in a short summary. There are 5 figures, 6 tables, and 119 references, 59 of which are Soviet.

Card 2/2



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

MEZHIROVA, L.P.; YAKOVLEVA, M.K.; MATVEYEVA, A.V.; ABKIN, A.D.; KHOMIKOV-SKIY, P.M.; MEDVEDEV, S.S.

Polymerization in emulsions under the action of Y-radiation. Vysekom.soed. 1 ne.1:68-72 Ja 59. (MIRA 12:9)

1. Firiko-khimicheskiy institut im. L.Ya.Karpova. (Polymerisation) (Garma rays)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

.5 (3) AUTHOR:

Khomikovskiy, P.M. (Moscow)

507/74-28-5-3/7

TITLE:

Elementary Reactions of the Emulsion Polymerization (Elementarnyye reaktsii emul'sionnoy polimerizatsii)

PERIODICAL:

Uspekhi khimii, 1959, Vol 28, Nr 5, pp 547 - 575 (USSR)

ABSTRACT:

The present paper investigates in detail the latex- and drop polymerization. The production of polymers by emulsion polymerization - one of the forms of radical polymerization - is more or less thoroughly investigated and its principal possibilities have been applied to practice. In spite of this fact many important problems of the radical polymerization, in particular under heterogeneous conditions, have not yet been solved. Further investigations in this direction are of greatest, not only general, but also practical interest. These investigations entail above all the further research of the characteristics of the elementary reactions. Among the elementary reactions the processes of initiation of polymerization appear to be least investigated. This holds especially for the initiation of polymerization in emulsions and other heterogeneous systems. The mechanism of the initiating effect of hydroperoxides in emulsions is e. g. not clear. The existing data on

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Elementary Reactions of the Emulsion Polymerization SOV/74-28-5-3/7

the role of the surface activity of these substances and their solubility in the formation of primary radicals are only a first step on the way towards the solution of the problems of this process. The possibilities of an acceleration of the initiation and regulation of the average molecular weight as well as of the distribution according to molecular weights by means of more active initiators and redox- or other combined initiating systems have by no means been exhausted (Refs 131-133). The initiation of polymerization in emulsions by nuclear radiation (Ref 134) is of great interest and might also have practical importance. The use of nuclear radiation facilitates the clear solution of several problems of the chemical mechanism of latex polymerization. The main characteristic of latex polymerization - high velocity and simultaneous formation of the polymers at high molecular weight - is due to the slowing down of the reaction of chain breaking. This phenomenon may be due to several reasons and is in connection with both the chemical reactions and the physical state of the system. Quantitative investigations of these processes, mainly the dependence of reaction rate and the distribution according to molecular weights on the number and size of particles, on the concentration of the radicals,

Card 2/4

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Elementary Reactions of the Emulsion Polymerization SOV/74-28-5-3/7

on the concentration of the monomers at the place of reaction and the rate of diffusion in viscous polymeric media are not only of general importance but they play also a considerable part in connection with the finding of the conditions of regulation of molecular weights, of the structure and the properties of the latex polymers. The investigation of the conditions necessary for the production of polymers which are insoluble in their monomers and which form during the polymerization in the mass a new phase, is of special interest. The reactions in such "double-heterogeneous" systems exhibit a number of little investigated characteristics. This group inclies the monomers that are of special importance to practical use. The application of surface active substances which apart from their emulsifying effect take place in the formation of primary radicals (Ref 135), and as a reducing component of the redox reaction is of considerable practical importance. The problems that have to be subjected to further investigation and which are of direct practical importance are: 1) the regulation of the reaction rate and the molecular weight of polymers by the introduction of electrolytes; 2) production of the latex polymers with inconsiderable content of emulsifier; 3) production of latex polymers with uniform molecular weight according to the principle (Ref

Card 3/4

Elementary Reactions of the Emulsion Polymerization SOV/74-28-5-3/7

136) that most of the polymeric-monomeric particles contain one polymer radical each. The main difference between latex- and drop polymerization - it is determined by the character of the emulsifier - lies in the fact that the process proceeds mainly in the emulsion drops and is characterized by rules which the polymerization of the monomer concerned possesses in the mass. In practice it is possible to observe in emulsion polymerization cases where in the course of the process the phenomena characteristic of both latex- and drop polymerization occur simultaneously. If in addition to this the process is accompanied by heterogeneous phenomena, the summary effects are extremely complicated. The investigations of such systems are still in the initial stage. There are 3 tables and 137 references, 57 of which are Soviet.

Card 4/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

BEREZHNOY, G.D.; KHOMIKOVSKIY, P.M.; MEDVKDEV, S.S.

Kinetics of the emulsion polymerization of styrens. Vysokom. soed. 2 no.1:141-152 Ja *60. (MIRA 13:5)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii i Fiziko-khimicheskiy institut im. L.Ya.Karpova. (Styrene) (Polymerization)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

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HOMINOVSKI, P.M. [Khomikovsky, P.M.]; SENATORSKAIA, L.G. [Senatorskaya, L.G.]

SEREGREAKOVA, Z.G. [Serebryakova, Z.G.]

Utilization of surface-active substances in the obtaining and processing of polymers. Analele chimie 15 no.2:50-64 Ap-Je *60.

(Polymers and polymerization)

(Surface-active substances)

(EMAI 9:11)

(Spot tests (Chemistry))
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15.8060

25264

S/190/61/003/007/008/021 B101/B220

AUTHORS:

Gromov, V. F., Khomikovskiy, P. M., Abkin, A. D.

TITLE:

Copolymerization of acryl nitrile and ethylene under the effect of gamma radiation

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961

1015 - 1019

TEXT: The copolymerization of ethylene with acryl nitrile (AN) under the effect of gamma radiation of ${\rm Co}^{60}$, 20,000 g-equ radium, is studied. The tests were performed at 20°C in solution of toluene, the pressure of the ethylene being 10 to 45 kg/cm² and the intensity of the dose 30 rad/sec. The othylene obtained from ethanol contained the following impurities (in mole%): 0.05 propylene, 0.02 butylenes, ...) saturated hydrocarbons, C.14 ${\rm CO}_2$, 0.01 ${\rm O}_2$. The AN had a boiling point amounting to 77.5 - 78.5°C. The polymerization was effected in steel ampullae with magnetic mixer. The ampullae were filled with AN dissolved in toluene, liberated from air by freezing and thawing in vacuum, and saturated with Card 1/3

1

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722220009-7

25261

S/190/61/003/007/006/021 B101/B220

Copolymerization of acryl....

ethylene under the above-mentioned pressure. The polymer suspensions obtained were ringed with methanol, dried in vacuum, and then their content in nitrogen as well as their viscosity in dimethyl formamide at 26°C and with a concentration of the polymer of 0.35 to 0.75 g/dl. were determined. Data obtained: 1) for notar ratios of ethylene: AN -0.1:0.9 and 0.5:0.) the yield of polymer is linearly dependent on the time of polymerization required to achieve a 40% conversion. For a ratio of 0.7:0.3 the rate of polymerization increases up to 25% conversion and then decreases; 2) the intrinsic viscosity of the polymers increases with the degree of conversion; 3) with long radiation (about 20 hr and more) and a molar part of the AN >0.5 the polymers become insoluble due to cross linking; 4) the rate of polymerization increases with increasing concentration of the AN; 5) for all ratios the polymer contains relatively more AN than the initial mixture. In the range of concentrations of the AN from 0.1 - 1.0 molar parts, the equation y = $0.718 + 0.046x + 0.0019x^2$ holds, wherein x is the content of AN in the initial mixture and y the content of AN in the polymer; 6) the calculated constants of copolymerization are: $r_{1(AN)} = 7$, $r_2 \approx 0$. r_1 de-

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25264

S/190/61/003/007/008/021 B101/B220

Copolymerization of acryl....

creases, however, if the content in AN exceeds 0.7 molar parts; 7) the following constants were calculated for the copolymerization of ethylene with CO, based on the data given by M. Brubaker et al. (see below): $r_{2(CO)} = 0.25$; $r_{2(C_{2}H_{4})} = 0.57$. G. S. Kolesnikov. A. P. Suprun, and T

A. Scholeve are mentioned. There are 7 figures, 2 tables and 10 references: 5 poviet-bloc, and 5 non Soviet-bloc. The most important references to English-language publications read as follows: M. Brubaker, D. Coffman, H. Hoehn, J. Amer. Chem. Soc. 74, 1509, 1952; a. Kay, Industr. and Engng. Chem. 40, 1459, 1948.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute im. L. Ya. Karpov)

SUBMITTED: September 20, 1960

Card 3/3

GROMOV, V.F.; KHOMIKOVSKIY, P.M.; ABKIN, A.D.

Gamma-ray induced copolymerization of acrylonitrile and ethylene.

Vysokom.soed. 3 no.7:1015-1019 J1 '61. (MIRA 14:6)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.

(Acrylonitrile) (Ethylene) (Polymerization)

S/*90/6*/003/012/008/012 B124/B*01

AUTHORS: Bereshnoy, G. D., Khomikovskiy, P. M. Medveder, S. S.

TITLE: Study of the smulsion (later) polymerication of styrene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v 5, no 12 1961

TEXT: The polymerization of styrene is studied in emulsions stabilized with the emulsifier NW (MK) (a mixture of C_{12} to C_{18} siky) sulfonates with the average composition $C_{12}H_{5}(SO_{3}Na)$ and sodium laurate (SL). Folymerization was initiated by potassium persulfate (PP), aroisobatyrodiustrile (DN); and benzoyl peroxide (BP). The methods used to determine the polymerization rate (v) and the mean polymerization degree (P_{10}) had been described by the authors in Ref. 1 (Vysokomolek, soyed, 2, 141, 1960), all polymerization experiments were performed at 50%, using a volume ratio of monomer to emulsifier solution = 13. The polymerization rate is given in grams of polymer per 100 milliliters of agreeue phase per minute. The

Card 1/1 4

8/-30/61/003/012/008/012

P 24/B 0: Study of the emulsion (latex) dependence of π and P_n on the consentrations of PP (Fig. 1) and DN (Fig. 2) at constant SL concentration, and the effect of the Sh concentration on T and $P_{_{\rm D}}$ at constant PP compensuation (Fig. 5) were corestigated. The effect of the concentration of the emplacement of MK or rack P at rathable IN concentration is illustrated in Fig. 4. The number of polyments monometric particles (PMP) and their botal surface area $(S_{\rm good})$ per unit volume of later increases with rising emulatifier concentration, whereas the mean PMP diameter descreases with rising compensation of the emm. sifted. The total sunface area of PMP does not rety with the competation degree, while the impresse of their wear discerer with the corresponding degree is nearly linear. At constant consentration of the enclosive ME (2 and 3 %, mespectively), the Rotal endface area of PMP and their diagets; demain unchanged avea if the initiator concentration is increased by a factor of 40. When PF is used, Spotal of PMP is properlimal to the square need of MK conservables. Heads, the relation between τ and S , is linear. same holds for DN. The degree of unsamuration of PMY detreases linearly Card 2/0 4

S/*90/6*/003/012/008/012 B124/B101

Study of the emulsion (latex)....

with increasing emulsifier concentration, and does not vary with the conversion degree provided the emulsifier concentration is kept constant. Assuming that termination takes place by the interaction of two polymer radicals, the equation: $P_n = c_{tot} |s|^{0.5}/|T|^{0.5}$ (1) holds for PP, and

the equation $P_n = c_{tot}/(I)^{0.5}$ (2) for DN and BP, where [S] is the emulsifier concentration in the aqueous phase. [I] is the initiator concentration in the aqueous phase, and (I) is the initiator concentration in the adsorptive layers of the emulsifer. At high initiator concentration in the adsorptive layers of the emulsifer. At high initiator concentration, the adviation from the above-mentioned relationship was observed. The tions, a deviation from the above-mentioned relationship was observed. The woman students N. Petukhova and I. Korobanova participated in the work.

**T. Krishan (Ref. 8: Candidate Dissertation, Moskovskiy institut tonkoy T. Krishan (Ref. 8: Candidate Dissertation, Moskovskiy institute of Fine khimicheskoy tekhnologii im, M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine Chemical Technology imeni M. V. Lomonosova (Mossow Institute of Fine

Card 3/14

Study of the emulsion (latex)....

8/190/61/003/012/008/012

E. Cochain, Trans. Inst. Rubber Ind., 28, 297, 1952

ASSOCIATION: Moskovskiy institut toukoy khimicheskoy tekhnologii (Moscov

Institute of Fine Chemical Technology) Firtho-khimicheskiy institut im. L. Ya. Karpova (Physicophemical Institute

imeni L Ys. Karpov)

SUBMITTED: January 14, 1961

Fig. : Effect of the PP concentration [I] on τ and P_n SL (2 % of the aqueous phase) is used as an emulsifier: (1) according to the equation $\alpha = c_0 |I|_{1/5}^{3}$ (2) associating to the equation $B_n = \frac{1}{2} c_0 |S|_{1/5}^{3} |I|_{1/5}^{3}$

Fig. 2. Effect of the DN concentration on v and P_{n} . $SL_{n}(2.\%)$ is used as an emplicifier: (1) according to the equation $v = o(1)^{1/2}$; (2) according to the equation $P_n = c_{tor}^2/(r)^{1/2}$

Card 4/1

29761 15. 9201 1372, 1436, 1474 s/190/61/003/011/013/016 B110/B147 11, 2211 Ushakov, V. D., Mezhirova, L. P., Galata, L. A., Kontyuk, A.G., AUTHORS: Khusnutdinova, Z. S., Medvedev, S. S., Abkin, A. D., Khomikovskiy, P. M. Polymerization of styrene and butadiene with styrene in TITLE: emulsions under the action of initiating redox systems. I. Effect of the nature of peroxide compounds on the rate of polymerization PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961, 1716-1722 TEXT: Aim of the present work was the determination of the most active initiating redox systems for the polymerization of butadiene with styrene in emulsions, and especially of the effect of the nature of peroxides on the rate of polymerization. Nekal with 20 % of $\rm Na_2SO_4$ and NaCl and morgolate (mixture of Na salts of sulfonic acids of the aliphatic series: $c_{15}^{\rm H3}1^{\rm SO}_3{\rm Na}$) with $\lesssim 5$ % of NaCl served as emulsifiers. Peroxides were used Card 1/7

"APPROVED FOR RELEASE: 09/17/2001

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227111 s/190/61/003/011/013/016 B110/3147

Polymerization of styrene and...

as oxidents (Table). Potassium ferrocyanide and ferrous pyrophosphate complex (IV) served as reducing agents. The rate of polymerization mas complex (17) served as requeing agencs. The race of polymer (in ampula). determined either dilatometrically or from the yield of polymer (in ampula). determined either dilatometrically or from the yield of polymer (in ampula). Polymerization took place at 5°C with an excess of butadine, styrene with perexiden dissolved in it (10 % solution), and the calculated amount of emulsifier solution. A suspension of the ferrous pyrcphesphate complex was equal at a costain torong the second of addical emulsion. acored at a certain temperature by means of medical syringes. Substances accord as a certain semperature by means of medical syringes. Substances asset: (1) mersolate (3 % by weight added to water, ratic monomer : emulsifier 1:5); (2) potassium ferrocyanide. The temperature was varied between C and 30°C. Seven peroxides were investigated in amounts equivalent to Clos and C.1 % by weight of isopropyl benzene hydreperoxide. K4Pe(CR)6 The used in concentrations equimolecular to hydroperoxide. priest-buryl isopropyl benzens hydroperoxide (I) had the optimum rate of polymerization; that of ethyl isopropy! benzene peroxide, isopropyl benzene- (II), and ernal of genge isopropyr bunnens peroxide, isopropyr bensene (ii), and ernyl bensene hydroperoxide stall cower, and that of benzoyl peroxide the lowest. Polymerization with $\rm H_2O_2$ proceeds fast at the beginning, then it decreases strongly, since $\kappa_2 \sigma_2$ and the reducing agent are readily soluble in water. With 0.2-0.5 % by weight Card 2/7

297h1 \$/190/61/003/011/013/016 B110/B147

Polymerization of styrene and ...

of II, only the initial rate increases. The total yield is lower than with 0.1% by weight of II. Between 0.75 and 1% by weight of II, initial rates and total yield are much lower. With 0.02-0.2% by weight of I, initial rates increase. Since the total rate decreases at 0.2% by weight, the dependence of the reaction rate on the hydroperoxide concentration is probably linked with the inhibiting effect of the decomposition products of hydroperoxide. With 0.1% by weight of I and an equimolecular amount of K4Fe(CN)6, both total yield and initial rate increased with increasing temperature. The activation energies were determined according to the

temperature. The activation energies were determined according to the Arrhenius equation and found to be: E=8.6 kcal/mole for II and E=5.7 kcal/mole for I. Reduction of E by 3 kcal/mole at $\sim 0^{\circ}$ C corresponds to a 200-fold increase of the reaction rate. Since the rate is twice as high at 0°C, the pre-exponential factor in the Arrhenius equation increases

by 10² times with decreasing activation energy of I. For the copolymerization of butadiene with styrene (ratio 70:30) at 5°C, the following was used: Nekal (2.8 and 1.4 % by weight added to water). 0.44 % by weight of ferropyrophosphate (related to iron sulfate) of the monomer. The ratio organic phase: aqueous phase was 1:4 (by weight). In the case of 0.34 %

Card 3/7

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s/190/61/003/011/013/016 B110/B147 Polymerization of styrene and ... by weight of hydroperoxide of II (equimolar ratio to the monomer) optimum rate was achieved with IV. The highest yield was achieved with aryl-alkyl hydroperoxides (I and 1,1-diphenyl ethane hydroperoxide (III)) (Table). With an emulsifier concentration of 2.8 %, maximum conversion (70-75 %) was achieved after 2 hr with 0.2 % by weight of I and with 0.3 % by unight of III. With 0.34 % by weight of II, optimum conversion (~30 %) was achieved after 2 hr. Polymerization of I and IV with 1.4 or 2.8 % by weight of emulsifier was constant up to 30 % conversion, then the rate dropped. With 1.4 % by weight, the initial rate was lower and the decrease more distinct. With an addition of 0.1 % by weight of hydroperoxide + 0.26 % by weight of IV (after 1 hr new addition of 0.1 % by weight of hydroperoxide and 0.18 % by weight of IV), constant polymerization took place up to 60 % conversion. Thus, the consumption of the initiating system causes a decrease in rate. The efficiency of redox systems and initiators depends on the reactivity of the radical as well as on the solubility of the peroxide compounds in the aqueous phase and in the monomers. The lower the solubility in water, the lower the loss and the stronger the initiating action. I + IV cause a higher rate of reaction than II + IV due to lower activation energy and lower solubility in water. For II + IV, the redox reaction occurs at the Card 4/7

297lil S/190/61/003/011/013/016 B110/B147

Polymerization of styrene and ...

phase boundary, for I + IV also in the aqueous phase. The existence of a maximum of the rate of polymerization for I and butylisopropyl hydroperoxide is caused by polymerization inhibition due to the decomposition products of the hydroperoxides. The authors thank A. G. Pod"yapol'ska for help with experiments and T. I. Yurzhenko (L'vovskiy industrial'nyy institut (L'vov Industrial Institute)) for supplying some hydroperoxides. There are 5 figures, 1 table, and 7 references: 4 Soviet and 5 non-Soviet. The two references to English-language publications read as follows: F. A. Bovey, I. M. Kolthoff, Emulsion Polymerization, New York, 1955; C. P. Fryling, Industr. and Engag. Chem., 41, 986, 1949.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Yo. Karpova (Physico-

chemical Institute imeni L. Ya. Karpov)

SUBMITTED: December 28, 1960

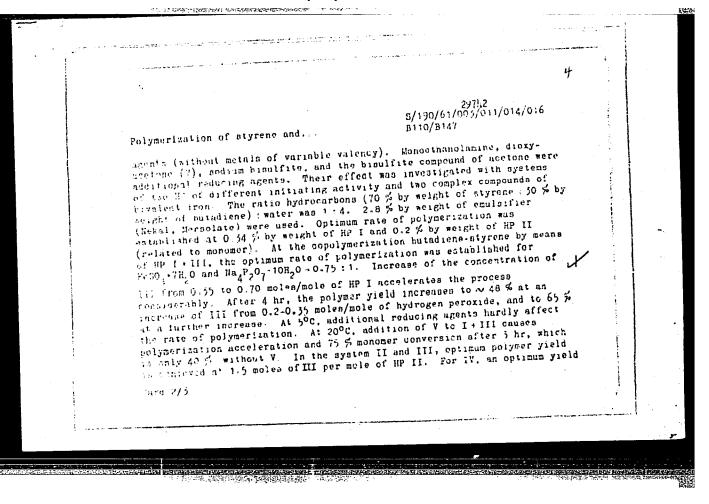
Card 5/7

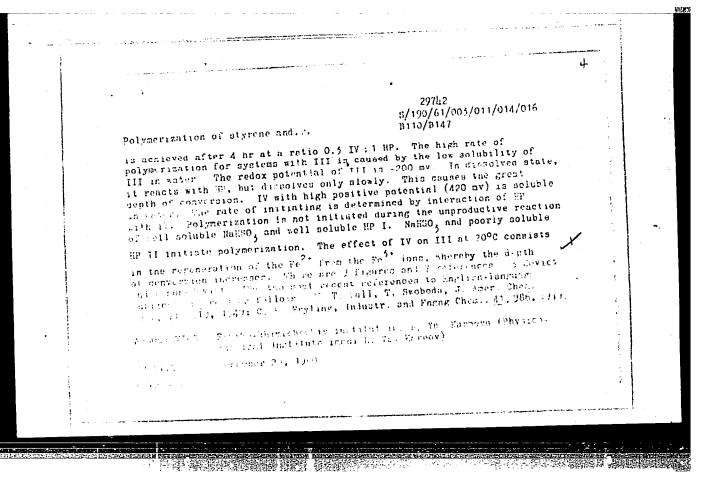
APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

297h2 8/190/61/003/011/014/016 B110/B147 15 9201 13 72, 1436, 1474 Ushakov, V. D., Mezhirova, L. P., Galata, L. A., Khusnutdinoya, Z.S., Sheynker, A. P., Medvedev, S. S., 11.2211 AUTHORS: Abkin, A. D., Khomikovskiy, P. M. Polymerization of styrene and butadiene with styrene in emulsions under the action of initiating redox systems. TITLE: IL Effect of the nature of the reducing agent on the rate of polymerization Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961, 1723-1729 PERIODICAL: TEXT: The effect of the reducing component of initiating systems and of the addition of a second reducing agent on the rate of polymerization is studied. Used were systems of hydroperoxides (HP) of isopropyl benzene studied. Used were systems of hydroperoxides (HP) of isopropyl benzene (I) or p-tert-butyl isopropyl benzene (II) with ferropyrophosphate complex (III), potassium ferrocyanide (IV), ferrous sulfate with e-phenanthroline, or of complexes of α,α -dipyridyl with ferrous exalate. Sodium bisulfite and the bisulfite compound of acetone served as reducing Card 1/3

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722220009-7





BEREZHNOY, G.D.; KHOMIKOVSKIY, P.M.; MEDVEDEV, S.S.; Prinimali uchastiye: PETUKHOVA, N., studentka; KOROBANOVA, I., studentka

Study of the emulsion (latex) polymerization of styrene. Vysokom.soed. 3 no.12:1839-1846 D '61. (MIRA 15:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii, i Fizikokhimicheskiy institut imeni L.Ya.Karpova. (Styrene) (Polymerization)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

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MEDVEDEV, S.S.; KHOMIKOVSKIY, P.M.; SHEYNKER, A.P.; ZABOLOTSKAYA, Ye.V.; HEREZHNOY, G.D.

Some laws governing emulsion polymerization. Probl.fis.khim. no.1:5-17 '58. (MIRA 15:11)

1. Laboratoriya polimerizatsionnykh protsessov Nauchnoissledovatel'skogo fiziko-khimicheskogo instituta im. Karpova.

(Polymerization)

(Emulsions)

s/190/63/005/004/002/020 B101/B220

AUTHORS:

Gerasimov, G. N., Abkin, A. D., Khomikovskiy, P. M.

TITLE:

Mechanism of heterogeneous polymerization of ethylene under

the effect of ionizing radiations

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 4, 1963, 479-486

TEXT: A method was developed for determining the diffusion coefficient of ethylene in polyethylene by plotting the desorption curve, after the polyethylene had been previously saturated under pressure (up to 200 atm) with ethylene. The desorption-induced change in weight of the polyethylene was measured. The diffusion coefficient was at 25° C ~ 3.5 , at 38° C ~ 6.0 , at 50°C~9.0. The solubility of ethylene in polyethylene is proportional to its volatility, and with constant volatility independent of the temperature. With constant temperature, the diffusion coefficient is independent of the solubility of ethylene. The specific surface and the pore diameter of the polyethylene was determined with crypton by the method of A. Zettlemover, A. Chanda, E. Gambble (J. Amer. Chem. Soc., 72, 2752, 1950). The specific surface was dependent on the conditions of polymerization; it was $(m^2/g):20.2$ with a dose of 62 r/sec, 300 atm, 70° C, irradiation time 10 hr; Card 1/2

S/190/63/005/004/002/020 B101/B220

Mechanism of heterogeneous ...

33.2 at 141/r sec, 400 atm, 25° C, 6 hr; and 18.0 at 141 r/sec, 400 atm, 25° C, 12 hr. Assuming cylindrical pores their internal diameter r and wall thickness d are calculated: $r_{\circ} = 1.66 \cdot 10^{-5}$ cm, $d = 6.32 \cdot 10^{-5}$ -

1.69°10⁻⁵ cm. Based on the cylindrical model and using the method of J. Cranc (Mathematics of Diffusion, Oxford Univ. Press, London, 1957), a rate of ethylene addition at the radicals inside the polymer of 23.2 g/l·sec was found, whereas the experimental data vary between 8.5 and 45.0 g/l·hr. This difference is explained by the fact that the concentration of the re-

active radicals inside the polymer is less than 10⁻³ mole/l. From the proportionality between rate of polymerization and specific surface it is concluded that the reactive radicals are mainly at the surface of the polymer. There are 4 figures and 3 tables.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute imeni L. Ya. Karpov)

SUBMITTED: November 5, 1961

Card 2/2

19 June AID Nr. 993-6

RADIATION POLYMERIZATION OF TETRAFLUOROETHYLENE IN THE SOLID STATE (USSR)

Bruk, M. A., A. D. Abkin, and P. M. Khomikovskiy. IN: Akademiya nauk SSSR. Doklady, v. 149, no. 6, 21 Apr 1963, 1322-1325. S/020/63/149/006/014/027

The radiation polymerization of tetrafluoroethylene (TFE) in the solid state has been studied at the Physicochemical Institute imeni L. Yu. Karpov.. Specimens of pure TFE were frozen by immersion in liquid nitrogen and irradiated from a Coeo source with an activity of 60,000 g-equiv of Ra or from an electron accelerator with an energy of 1.5 Mev. The yield of the polymers was determined gravimetrically following fast defreezing of irradiated specimens. The EPR spectra were recroded with the use of P3-1301 type devices; the absolute concentrations of radicals were evaluated by comparison of the signal areas of the sample and of a standard with

Card 1/2

CIA-RDP86-00513R000722220009-7" **APPROVED FOR RELEASE: 09/17/2001**

AID Nr. 993-6 19 June

RADIATION FOLYMERIZATION [Cont'd]

5/020/63/149/006/014/027

a known concentration of paramagnetic particles. It was shown that 1) the initial polymerization rate of TFE in the solid state increases with temperature, attains a maximum near the melting point, and drops sharply after melting; 2) the total activation energy of polymerization is 0.6 kcal/mol in the -196 to -155°C range and 1.6 kcal/mol at -155 to -131°C; 3) rapid annihilation of radicals takes place in the -180 to -140°C range and in the -80 to -50°C range; and 4) the character of the radical annihilation and changes in the EPR spectra observed at low temperatures suggest that these spectra are associated with the radical formed in the monomer, and the spectra observed at -150°C and above, to the radical in the polymer. Finally, it is assumed that the polymer radical has the structure

and is formed in the system as a result of the growth of the polymer chain.

Card 2/2

THE CANADA SECTION OF THE PROPERTY OF THE PROP

____SSION NR: AP4012181

\$/0191/64/000/002/0003/0006

URHORS: Abkin, A. D.; Auer, A. L.; Breger, A. Kh.; Vaynshteyn, B. I.; Voropayev, Yu. V.; Gol'din, V. A.; Gromov, V. F.; Osipov, V. B.; Sy*rkus, N. P.; Ushakov, V. D.; Khomikovskiy, P. M.; Tsingister, V. A.; Chikin, Yu. A.

TITLE: Radiation polymerization of ethylene in enlarged laborator apparatus.

SOURCE: Plasticheskiye massy*, no. 2, 1964, 3-6

TOPIC TAGS: ethylene, radiation polymerization, reactor design, reactor surface area, reaction rate, polymer yield, reactor temperature field

ABSTRACT: Radiation polymerization of ethylene was conducted in laboratory reactors of 1-2 liter capacity (fig. 1 & 2). Based on tolerances admitted in this work, it was found that the temperature field can be calculated with sufficient accuracy. Comparison of reaction rates and yield of ethylene polymer shows that these factors are independent of the specific surface of the reaction space. Thus

Card 1/4

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Card 2/#2_	•				<u>ئ</u>	

Effect of the addition of emulsifying agents on the course of the emulsion polymerization of styrene. Vysokom. soed. 6 no. 5:891-895 My '64.

l. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova i Fiziko-khimicheskiy institut imeni Karpova.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

Pc-4/Pr-4/Peb/ ENG(j)/EMT(m)/EPF(c)/EPF(n)-2/EMF(j)/T/EMA(h)/EVA(1) ASD(a)-5/ASD(m)-3/AS(mp)-2/AFETR/ESD(gs)/ESD(t) S/0191/64/000/011/0013/0014 ACCESSION NR: AP4048201 B AUTHOR: Gromov, V. F., Khomikovskiy, P. M., Abkin, A. D. TITLE: Effect of the addition of saturated hydrocarbons on the radiation polymerization of ethylene 1 SOURCE: Plasticheskiye massy*, no. 11, 1964, 13-14 TOPIC TAGS: radiation polymerization, ethylene, saturated hydrocarbon, polymer strength, polyethylene, Gamma radiation ABSTRACT: The production of soluble polyethylene with satisfactory mechanical properties by radiation polymerization in the presence of low-molecular saturated hydrocarbons was investigated. Heptane and cyclohexane were used as additives and Co60 as a radiation source. The experiment was carried out at 20C and 400 atm. with 3-24% by weight of heptane and a radiation dose of 65 rad./sec. The effect of the heptane content on the rate of polymerization and the molecular weight and properties of the resulting polymers was studied. Tabulated data show that for the same ethylene concentrations, increasing the heptane concentration increases the rate of polymerization considerably (especially at more than 6% heptane) and decreases the molecular weight (intrinsic 1/3 Card

L 14506-65

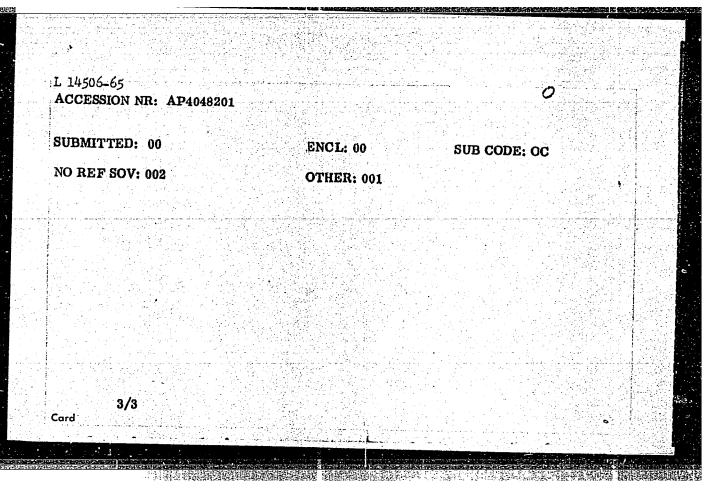
ACCESSION NR: AP4048201

viscosity). The variation in the polymer yield with irradiation time at 9.0-9.7% heptane content is plotted. In the presence of heptane, completely soluble polymers are obtained up to a degree of conversion of 70-80%, while radiation polyethylene prepared without additives contains insoluble fractions at a degree of conversion of only 30-50% and has a very low fluidity. The tensile strength depends slightly on the heptane concentration and remains in the range of 170-246 kg/cm². The elongation at break is increased by an average of 600-700% as the heptane content increases from 3-10% by weight, but decreases considerable above 11-23% heptane. At about 10% heptane, the density is 0.96 and does not differ from that of polyethylene prepared without additives. Concerning the effect of cyclohexane, the best properties were obtained at 6.5% cyclohexane in the initial mixture. The radiation polymerization of ethylene is accompanied by the radiolysis of the polymer, which leads to the formation of branched and cross-linked polymers. Radiation polyethylene has a higher density and crystallinity than the low-pressure polyethylene. It was found that, in order to reduce the reactions leading to cross-linking during the radiation polymerization of ethylene, 10 w-molecular saturated hydrocarbons in an amount of 5-10% are very effective additives, resulting in polymers with good mechanical and flow properties. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: None

Card 2/3

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7



ACCESSION NR: AP4040956 S/0020/64/156/005/1150/1153

AUTHOR: Gerasimov, G. N., Khomikovskiy, P. M., Abkin, A. D.

TITLE: Ethylene radiation polymerization mechanism

SOURCE: AN SSSR. Dorklady*, v. 156, no. 5, 1964, 1150-1153

TOPIC TAGS: ethylene, ethylene polymerization, alkyl radical, rolyethylene, EPR, EPR spectrum, trans-vinyl bond, polymer

ABSTRACT: Radiation polymerization of ethylene at temperatures below the polymer's melting point is characterized by the fact that the reaction rate is increased at the beginning of the process, attains a maximum and then decreases. This observed effect is not associated with a change in the gaseous phase composition but is determined by the accumulation of the solid polymer. The present work is a study of the kinetics of radiation polymerization of ethylene with the help of, a specially-designed dilatometer in which the reaction rate was measured under rigidly constant pressure. The dilatometer design is to be described in a special article. Ethylene whose composition was given by S. S. Medvedev et al (Vysokcmolek. soyed. 2, (1960), 904) was used in the experiment. The polymerization was carried out on a K-60000 gamma radiation source at 100-250 at.,

ACCESSION NR: AP4040956

25-55C temperature and dosage rate (I) of 9 rad/sec. The kinetic curves are characterized by a rate maximum W_{max} . The radiation polymerization of ethylene can proceed in the gaseous phase and in the solid polymer owing to the dissolved ethylene contained in the polymer. Experiment shows that the life period of radiation polyethylene radicals at room temperature coincides by order of magnitude with the dark reaction period. The radicals have a heptacomponent EPR spectrum which is characteristic of allyl radicals. The cocrystallization of the radicals with the polymer radicals takes place very rapidly. The concentration of the radicals in the gaseous phase is extremely low and can be disregarded through the interaction of these radicals with the radicals in the polymer. The overall change in polymerization rate depends to a large degree upon the probability of the radical transition between individual areas of the solid polymer. Two models of polymerization were examined: (1) the polymer is a homogeneous system, and (2) the polymer is a collection of noureacting homogeneous areas which are formed at diverse times. The polymer in the initial stage is formed in the shape of a charged and highly-dispersed aerosol, i. e'. the second model is realized. The particle size of the polymer decreases strongly with degree of conversion and the "consequence" of the first model grows. Mathematical analysis shows that the first model is characterized by a rate maximum, but that the period for attaining this maximum is much less than Card 2/3

ACCESSION MR: AP4040956

that observed experimentally. According to the second model, the polymerization rate should grow without interruption with accumulation of the solid polymer. The polymerization rate will be reduced with decrease in polymer particle size. Hence, the experimental kinetic curve will lie between the kinetic curves for the first and second models. Orig. art. has: 4 figures, I table and 2 equations.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physics and Chemical Institute)

SUBMITTED: 25Nov63

SUB CODE: OC, OP

NO REF SOV: 006

ENCL: 00

OTHER: 007

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

EPF(c)/SPF(n)-2/EPR/EWG(j)/EWA(h)/EWP(j)/EWT(m)/T/EWA(1) RPL/AFWL/ASD(m)-3/AS(mp)-2/ESD(gs) GG/RM/WH Pr-4/Ps-4/Pu-4/Peb S/0020/64/157/006/1399/1402 ACCESSION NR: AP4044881 AUTHOR: Bruk, M. A.; Abkin, A. D.; Khomikovskiy, P. M.; Gol'der, G. A.; Chu-Hsiang-ling TITLE: Certain questions about the radiation polymerization/and copolymerization of tetrafluoroethylene in the solid state Doklady*, v. 157, no. 6, 1964, 1399-1402 SOURCE: AN SSSR. TOPIC TAGS: radiation polymerization, solid state radiation polymerization, polymerization mechanism, tetrafluoroethylene, tetrafluoroethylene trifluorochloroethylene copolymer, luminescence, radical mechanism, ionic mechanism ABSTRACT: The solid state radiation polymerization of tetrafluoroethylene (TFE) and its radiation copolymerization with trifluorochloroethylene (TFCE) was investigated in order to determine the mechanism of the polymerization reaction. The temperature-polymerization rate curve showed a maximum at -131C, near the monomer melting temperature, and an additional maximum at -160 to -165C, where destruction of radicals, stabilized at lower temperatures, starts. X-rays

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showed no structural change in the -196 to -155 C range, hence the effect at -165 was attributed to the release in the molecular motion in the TFE crystal lattice. By examination of temperature relationships it was also established that the intensity of luminescence was not determined by the destruction of radicals. TFE and TFCE were copolymerized in the gas and liquid phases and in the solid state. In the gas and liquid phase gamma-radiation copolymorizations the product composition was proportional to that of the initial mixtures, i.e., the copolymerization constants were equal to 1. Solid state radiation polymerization was conducted with mixtures containing up to about 60% TFCE which are single phase solid solutions stable to -170C and higher. The copolymers produced at -145 and at -170C using up to 50% TFCE were all greatly enriched in TFE; the copolymerization constants: r₁ (TFE) = 25; r₂ (TFCE) = 0.04. Pure solid (crystalline or amorphous), or liquid (-120C)TFCE could not be polymerized. Addition of a small amount, 1%, of TFCE to TFE sharply reduced the yield of the polymer. It was concluded the radical mechanism of the gas and liquid phase polymerizations did not obtain for the solid state radiation polymerization; the mechanism of the latter was apparently ionic. "The thermoluminescence curve was obtained " Orig. art. has: by V. A. Tochin in the Institute of Chemical Physics AN SSSR. card 2/3

THE SHARE WELL BOTTOM SERVICE

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ASSOCIATION: None		
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	하는 사람들이 함께 독취 사회에서 한 경험을 받았다. 이렇는 사람들은 사람들은 사람들은 사람들은 사람들은 사람들이 되었다. 그 사람들은 사람들은 사람들은 사람들은 소식을 가득하는 것으로 보고 있다. 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은	
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	是一个人,但是一个人的。 第二章	

USHAKOV, V.D.; MATVEYEVA, A.V.; SLOVOKHOTOVA, N.A.; KHOMIKOVSKIY, P.M.; ABKIN, A.D.

Radiation polymerization of diketone in the solid and liquid states. Vysokom.soed. 7 no.7:1165-1170 J1 165.

(MIRA 18:8)

1. Fiziko-khimicheskiy institut imeni Karpova.

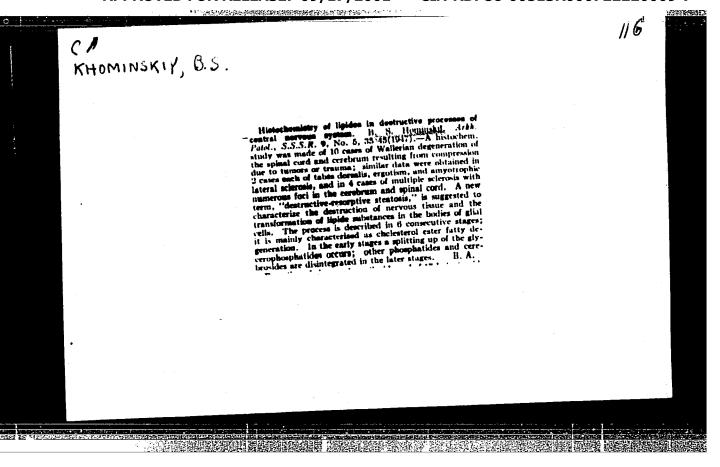
EVT(m)/EPF(n)-2/EVP(j)/T/EVA(h)/EVA(1)L 26138-66 SOURCE CODE: UR/0190/66/008/005/0961/0962 ACC NR AP6015061 (A)AUTHOR: Bruk, M. A.; Gromov, V. F.; Chernyak, I. V.; Khomikovskiy, P. M.; Abkin, A. ORG: None TITLE: Radiation-induced polymerization of tetrafluoroethylene and acrylonitrile at 4.2 K SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 5, 1966, 961-962 TOPIC TAGS: tetrafluorothylene, acrylonitrile, bulk polymerization, low temperature polymerization ABSTRACT: Polymers of tetrafluoroethylene or acrylonitrile have been prepared by bulk radiation-induced polymerization of the monomers at 4.2 K. Molten monomer samples were frozen at a given rate in liquid nitrogen, placed in a cryostat with liquid helium, and irradiated. Defrosting of the samples was conducted under conditions which excluded post-polymerization. The authors assume that in the course of polymerization of the monomers at low temperatures the bulk temperature of the samples does not determine the character of the polymer chain formation, which takes place in "hot" regions. The polymer chains grow before relaxation of the vibration excitation of molecules in "hot" regions has time to occur. The authors also assume that polymerization follows the cooperative mechanism which does not require activation for the addition of individual monomer molecules. Orig. art: has: 1 figure. SUB CODE: SUBM DATE: O6Jan66/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS 1/25 07, 11/ Card '1/1

RPL WW/GG/RM L L289-66 EWT(m)/EPF(c)/EFF(n)-2/EWP(j)/T/EWA(h)/EWA(1) UR/0020/65/164/002/0365/0367 ACCESSION NR: AP5024006 44,55 N.; Sabirova, T. M.; Khomikovskiy, P. M.; Abkin, AUTHOR: Gerasimov, G. TITLE: Radiation polymerization of vinyl chloride in solid solutions at low temperatures SOURCE: AN SSSR. Doklady, v. 164, no. 2, 1965, 365-367 TOPIC TAGS: vinyl chloride, radiation polymerization, mineral oil, solid solution ABSTRACT: The polymerization of vinyl chloride was carried out in mineral oil at a dose rate of 70 rad/sec (Co60) and temperatures of -78 and -196C, i.e., above and below the melting point of vinyl chloride. Considerable postpolymerization was found to take place during thawing of the solutions, so that the latter was carried out very rapidly when kinetic data were taken. The kinetic curves obtained show that at -196C the reaction rate decreases sharply during the first stage, and the polymerization practically ceases at 15 - 20% conversion; the yield of polymer becomes markedly reduced when the vinyl chloride content increases from 6 to 15%. At -78C, the reaction rate increases sharply at first, then reaches a maximum, and declines rapidly at 50 - 60% conversion. The products formed are low-molecular polymers. It is postulated on the basis of the kinetic data that the polymerization of vinyl chloride in a solid mineral oil solution is determined by a Card 1/2

L 4289-66 ACCESSION NR: AP5024006	3
systems also affects the polymerizatio	chloride molecules. The structure of the frozen on process. In contrast to amorphous solutions of fins, the solid system vinyl chloride-mineral oil resence of microheterogeneity, significant kinetics: 2 figures.
stitute)	institut im. L. Ya. Karpova (Physiochemical In-
SUBMITTED: 10Dec64 NO REF SOV: 001	OTHER: 005

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722220009-7



KHOMINSKIY, B.C.

KHOMINS"II B.S.

O reli ramlichnykh vidov glii v protesese pererabetki lipoidnykh produktov raspada. /Role of various kinds of glis in the prosess of metabolism of lipoid products of disintegration. / Arkh. pat., Moskva 12:4 July-Aug 50 p.36-ld.

1. Of the Department of Pathomorphology (Head -- Prof. B. S. Khominskiy), Kiev Psychonourological Institute (Director -- Dr. P. S. Tarasenko; Scientific Director -- of the Institute-- Active Member of the Academy of Medical Sciences USSR -- B. N. Man'kovskiy), Kiev.

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THE STATE OF THE S

KHOMINSKIY, B.S.

Problems of origin and pathomorphological diagnosis of gliomas. Arkh. pat., Moskva 14 no.3:57-69 May-June 1952. (CLML 23:2)

CONTROL OF THE PROPERTY OF THE

1. Of the Department of Pathonorphology (Head -- Prof. B. S. Khominskiy), Institute of Neurosurgery (Director -- Prof. A. I. Arutyunov), Ministry of Public Health Ukrainian SSR.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

U-7 USSR / General Problems of Pathology. Tumors. Comparative Oncology. Tumors in Humans.

Abs Jour: Ref Zhur-Biol., No 15, 1958, 70932.

: Khominskiy B. S., Brodskaya I. A. Author

: Pathological Morphology of Glial Tumors in the Inst Title

Large Hemispheres.

Orig Pub: Tr. Vseross. nauch-prak konferentsii neyrokhirurgov, 1953 i 1954. Leningrad, Medgiz, 1956, 270-274.

Abstract: Working on sectioned material, and by means of varied histological methods, a detailed study was made of 160 gliai tumors of the large hemispheres. Prevalent were 136 glioblastoma, mostly polymor-phous rather than isomorphous. Of the 18 astrocytes, one half of this number could be considered

Card 1/2

41

USSR / General Problems of Pathology. Tumors U-7
Comparative Oncology. Tumors in Humans.

Abs Jour: Ref Zhur-Biol., No 15, 1950, 70942.

Author . Khominskiy B. S.

Inst : Not given.

Title : Dislocation in Cases of Tumors of the Posterior

Occipital Fossa.

Orig Pub: Tr. vseross. nauch- prakt. konferentsii neyrokhir-

urgov, 1953 i 1954, Leningrad, Medgiz, 1956, 101-

103.

Abstract: A study of 60 tumors of the posterior occipital fossa revealed through sections, that a dislocation of the cerebellum assumed varied forms. In 19 cases there was a wedging of the omigdalae cerebelle into the foramen magnum, or according to the author into the "occipital dural funnel." The

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722220009-7"

USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Central Nervous System.

Abs Jour : Ref Zhur - Biologiya, No 9, 1958, No. 40781

Author Inst

Khominskiy B. S.

: Not given

Title

: On the Puthomorphology of Mycoses of the Central

Nerrous System.

Orig Pub

: Arkhiv patologii, 1956, 18, No 4, 43-50

Abstract

: Two cases of disease of the central nervous system caused by fungi are reported. In one case, in a 37-year-old patient, suddenly, following a cold, a severe neuralgic symptomatlogy and a periodical elevation of the evening temperature to 37.40 appeared. The patient died within 3 months following the beginning of the illness. At the autopsy 4 nodes with edema and swelling of the surrounding tissue were discovered in

Card 1/4

USSR / Huran and Animal Morphology (Normal and Pathological).
Nervous System. Central Nervous System.

S

Abs Jour : Ref Zhur - Biologiya, No 9, 1958, No. 40781

the depth of the left hemisphere. Focal changes were absent in other organs. It was established histologically that the nodes represented mycotic granulomas; their external zone consisted of a massive infiltration of lymphocytes, plasmatic cells, young connective tissue cells with outgrowth of argyrophil fibers and single giant cells. The middle zone contained primarily epithelioid and giant cells and a large amount of mycelium; the fungus was partly distributed in the bodies of the giant cells. The central area of the granuloma consisted of broken down tissue with an abundant leukocytic infiltration and, in places, mycelium. The author states that the demonstrated fungus belonged to the genus Aspergillus. In the second case, in a

Card 2/4

USSR / Human and Animal Morphology (Normal and Pathological).
Nervous System. Central Nervous System.

S

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61-year old female patient the disease lasted for 12 years and ended with death. The microscopical examination of the brain disclosed a picture of torulosis meningitis. The leptomeninges of the brain (particularly on the convex surface of the hemispheres) and, to a considerably lesser degree, of the spinal cord, were infiltrated with lymphocytes, plasmatic cells, fibroblasts and giant cells with inclusions of numerous yeast-like fungi, surrounded with a wide capsule. In places the inflammatory infiltration and the yeast-like fungi spread into the cortex following the adventitia of the vessels, occasionally forming microgranulomas. Isolated giant cells with yeast-like fungi were demonstrated in the lungs, spleen and the tracheobronchial lymph nodes. It is evident that the fungus was transferred

Card 3/4

Hernisl wedging of the brain in intracranial hypertension and its significance. Arkh.pst. 18 no.8:63-68 '56. (MLRA 10:2)

1. Is patomorfologicheskogo otdela (sav. - prof. B.S.Ihominskiy)
Mauchno-issledovatel'skogo neyrokhirurgicheskogo instituta Ministerstva sdravockhraneniya USSR (dir. - prof. A.I.Arutyunov)

(BMCSPHALOCHIS. etiology and pathogenesis.

intracranial hypertension causing hernial wedging of part of brain (Rus))

(GEREROSPINAL FUID.

hepertension causing wedging of parts of brain (Rus))

KHOMINSKIY, B.S., professor; KISELEVA, A.F., dotsent

TO DESCRIPTION OF THE PROPERTY OF THE PROPERTY

Work of the Eiev Society of Pathoanatomists during November 1954 to December 1955. Arkh.pat. 18 no.8:124-127 '56. (MIRA 10:2)

1. Predsedatel' Kiyevskogo obshchestva patologoanatomov (for Khominskiy). 2. Sekretar' Kiyevskogo obshchestva patologoanatomov (for Kiseleva)

(ANATOMY, PATHOLOGICAL)

U-7 USSR / General Problems of Pathology. Tumors. Comparative Oncology. Tumors in Humans.

Abs Jour: Ref Zhur-Biol., No 15, 1958, 70928.

Author : Khominskiy B. S.

: Not given. : New Trends in the Interpretation and Classification Inst Title

of Gital Tumors.

Orig Pub: Arkhiv Patologii, 1957, No 4, 3-17.

Abstract: Proposes a new histological and biological classification based on a morphological study of 620 sections of glioma, 500 biopcies, and literature. The new classification will include, besides a decreased differentiation i.e., the origin of the tumor as derived from embryonic cells, some reverse manifestations, or a differentiation of the mature glial cells (see attached table).

Card 1/6

CIA-RDP86-00513R000722220009-7 APPROVED FOR RELEASE: 09/17/2001 U-7

USSR / General Problems of Pathology. Tumors. Comparative Oncology. Tumors in Humans.

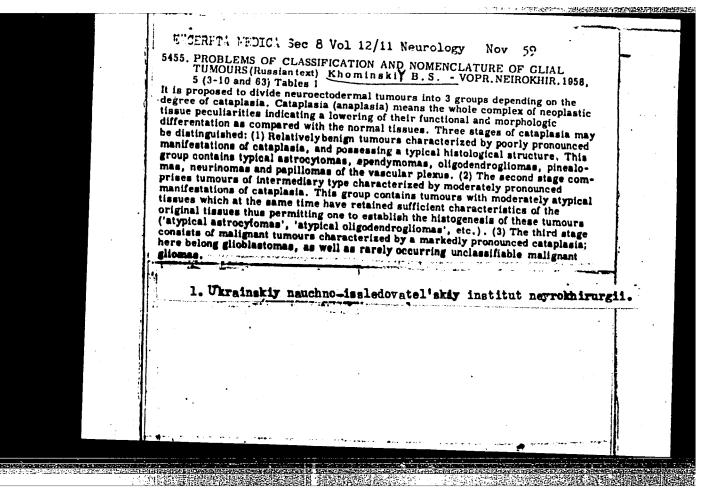
Abs Jour: Ref Zhur-Biol., No 15, 1958, 70928.

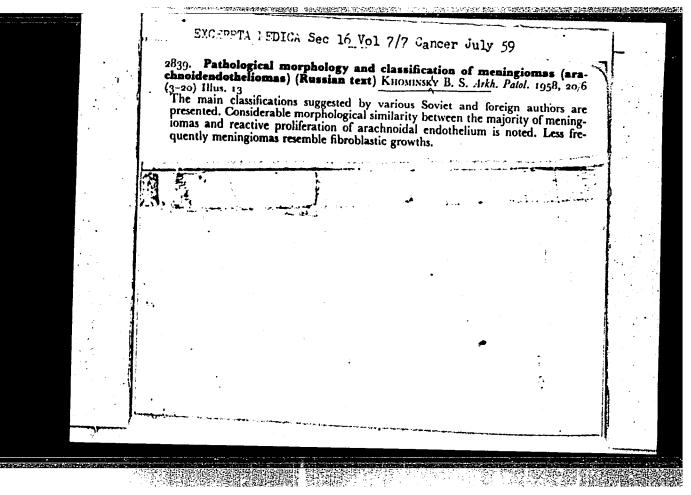
Abstract: Presents a brief clinical and anatomical description of the most frequently observed brain tumors. Proposes a classification different from the well known classification by Rio Ortega (1932), insofar that the group of multiform glioblastoma is segregated by the author as a series of independent forms -- benign and malignant tumors with different histogenesis.

Stages of Ca	taplasia (or	immaturity)
1	11	111
~~~ ton la sma~		Glioblastoma
	Astrocytoma: fibrillare,	Stages of Cataplasia (or  I II  Astrocytoma: Astrocytoma fibrillare, atypical protoplasma- tic, reticular.

Card 2/6

	Comparative Oncology: Tumors in Humans.  Ref Zhur-Biol., No 15, 1958, 70928.				
Abstract:	Histogenesis (Maternai Celis)	Stages of Cataplasia (or immaturity)			
		<b>I</b>	II	III	
	Ganglia cells (mature and embryonic)	Gangliocyt- oma (or gang- lioneuroma)		Neuroblast- oma - a more differentited form (dis- guised as: sympathobla- stoma, sym- pathogonioma)	
	Glia cells plus vascular connective	Angioglioma (Russi and Oberlen)		Malignant bidermal tumor	





KHOMINSKIY, B.S.; BRODSKAYA, I.A.; VERKHOGLYADOVA, T.P.; KVITNITSKIY-RYZHOV, Yu.N.; TUSHEVSKIY, V.F.

> Changes in the cerebral matter in relation to the structural and biological peculiarities of brain tumors. Problemeirokhir. 4:277-(MIRA 13:11) 302 *59.

(BRAIN--TUMORS)

KHOMINSKIY, B.S., prof. (Kiyev)

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Questions open to discussion on the subject on intracerebral tumors of mesenchymal genesis. Vop.neirokhir. 24 no.5:1-8 S-0 *60. (MIRA 13:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut neyrokhirurgii.
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[Problems of neurosurgery; clinical, pathophysiological and morphological principles in neurosurgical pathology] Problemy neirokhirurgii; klinicheskie, patofiziologicheskie i morfologicheskie zakonomernosti v neirokhirurgicheskoi patologii. Kiev, Zdorov'ia, 1964. 332 p. (MIRA 18:9)

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